



# Montana Fish, Wildlife & Parks

March 2, 1998

1420 East 6th Ave.  
P.O. Box 200701  
Helena, MT 59620-0701

Environmental Quality Council  
Montana Department of Environmental Quality  
Montana Department of Fish, Wildlife and Parks  
    Fisheries Division  
    Endangered Species Coordinator  
    Nongame Coordinator  
    Missoula Office  
Montana State Library  
MT Environmental Information Center  
Montana Audubon Council  
Bitterroot Conservation District  
U.S. Army Corp of Engineers, Helena  
U.S. Fish and Wildlife Service, Helena  
Montana State Library, Helena  
State Historic Preservation Office, Helena  
Jeff and Sherry Alexander, 116 Alberta Way, Victor, MT 59875  
Water Consulting, Inc.

Ladies and Gentlemen:

Please find enclosed an Environmental Assessment prepared for a Future Fisheries Project tentatively planned to restore stream channel stability and fish habitat in a 3,270 foot reach of Sweathouse Creek located near the town of Victor.

Please submit any comments that you have by 5 P.M., April 1, 1998 to the Department of Fish, Wildlife and Parks in Helena at the address listed above. If you have any questions, feel free to contact me at (406) 444-2432.

Sincerely,

Mark Lere, Program Officer  
Habitat Protection Bureau  
Fisheries Division

*Ravalli*

ENVIRONMENTAL ASSESSMENT  
Fisheries Division  
Montana Fish, Wildlife and Parks  
Lower Sweathouse Creek Restoration Project

General Purpose: The 1995 Montana Legislature enacted statute 87-1-272 through 273 which directs the Department to administer a Future Fisheries Improvement Program. The program involves physical projects to restore degraded fish habitat in rivers and lakes for the purposes of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. This project is being proposed to restore stream stability and fish habitat on a 3,270 foot segment of Sweathouse Creek located near the town of Victor. The Future Fisheries Improvement Program would provide funding to restore only the lowermost 1,500 foot section within this 3,270 foot segment of stream.

I. Location of Project: This project will be conducted on Sweathouse Creek near the town of Victor within Township 8 North, Range 20 West, Section 29 and 30 in Ravalli County.

II. Need for the Project: Department Goal A indicates that a Fisheries Division objective is to "protect existing aquatic habitat and improve degraded stream systems for the welfare of healthy fish populations and other wildlife species and for public enjoyment and use." The Future Fisheries Improvement Program is a tool to help achieve that objective.

Due to past land use activities, the lower reach of Sweathouse Creek has become unstable. This instability is displayed by excessive stream bank erosion, an aggrading stream bed and poor fish habitat. This instability has been exacerbated in the past by individual landowners placing rock rip-rap on eroding banks in a piece-meal fashion. This past work simply passed erosion problems on to downstream landowners. The proposed project would restore the degraded segment of stream by reshaping portions of the channel to a more stable hydrologic form, installing rootwads and other natural material revetment to stabilize erodible banks and constructing a series of grade control structures to maintain stream bed elevation.

III. Scope of the Project:

Overall, the proposal calls for restoring approximately 2,780 feet of degraded channel within a 3,270 foot segment of stream. Proposed work would include re-shaping the stream channel to reduce width to depth ratios, create appropriate meander patterns and improve sediment transport capabilities; stabilizing eroding banks using natural material revetment; and controlling channel grade using log vanes or rock and log "V" structures. These activities would enhance the overall health of the stream by reducing sediment input into downstream waters, improving sediment transport capabilities, creating pool habitat for trout holding areas, and cleansing spawning gravels. The entire project, which incorporates approximately 3,270 feet of stream, is expected to cost \$92,575.00. Of this total, the Future Fisheries Improvement Program would be contributing up to \$10,000.00 to restore the lowermost 1,500 foot segment of the stream located immediately upstream from the conjunction with the Bitterroot River.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Stabilizing the existing channel is expected to create a more diverse and healthy habitat for aquatic life by reducing sediment input and by creating hydrological stable pool-riffle sequences. Expected improvements in the aquatic habitat should enhance resident trout populations in the stream as well as increase the recruitment of trout to the Bitterroot River. Habitat for riparian dependent wildlife would also be improved through bank stabilization and through sod and shrub transplants along the stream corridor.

2. Water quantity, quality and distribution.

Short term increases in turbidity will occur during project construction. To minimize turbidity, construction will occur during a low flow period and operation of equipment in the stream channel will be minimized to the extent practicable. A permit for a short term exemption from turbidity will be obtained from the Water Quality Bureau and a 310 permit will be obtained from the local Conservation District. In the long term, stabilizing the existing channel and protecting erodible banks would reduce the sediment contribution to downstream areas, thereby improving the overall quality of downstream waters.

3. Geology and soil quality, stability and moisture.

No effects on geology and soils are expected above the high water mark. Below the high water mark, the project is expected to create a more stable stream channel. Sediment removed from the channel would be placed on newly created point bars and re-vegetated.

4. Vegetation cover, quantity and quality.

Riparian vegetation and cover would be improved by creating a more stable stream channel and trans-planting sod and shrubs along the stream corridor.

5. Aesthetics.

Aesthetics would be enhanced by restoring a degraded reach of stream to a more healthy and natural stream environment. A 1,500 foot reach would be restored to a Rosgen type C-4 channel, erodible banks would be stabilized with natural material revetment and the riparian vegetative community would be enhanced through transplants of sod and shrubs.

9. Historic and archaeological sites

The proposed project will likely require an individual Army Corp of Engineers (COE) 404 permit. Therefore, the State Historic Preservation Office has been contacted to determine the need for compliance with the federal historic preservation regulations. The project will not begin until a cultural clearance is granted.

VI. Explanation of Impacts on the Human Environment.

7. Access to & quality of recreational activities.

It is anticipated that restoration of this 1,500 foot reach of Sweathouse Creek would improve overall aquatic habitat and, as a result, would enhance trout populations residing in the stream and would improve recruitment of trout to the Bitterroot River. As a result, the recreational fishery in both the stream and the river would be expected to be improved.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, a 1,500 foot reach of Sweathouse Creek will remain degraded, fish populations will remain low and recruitment of trout to the Bitterroot River will remain marginal. In addition, habitat for riparian dependent wildlife will remain in a degraded condition. Recreational opportunities associated with fish and wildlife resources will remain reduced and aesthetics will continue to be impaired.

2. The Proposed Alternative

The proposed alternative is designed to re-construct the stream channel to appropriate hydrologic dimensions, stabilize erodible banks using natural material revetment and riparian plantings and maintain the stream bed elevation with a series of grade control structures. These activities would create a more diverse habitat for aquatic life and riparian dependent wildlife. This alternative would improve fish and wildlife habitat, aesthetics and water quality within the project area and would be expected to increase trout populations both in the stream and the Bitterroot River.

VIII. Environmental Assessment Conclusion Section

1. Is an EIS required? No.

We conclude from this review that the proposed activities will have a positive impact on the physical and human environment.

2. Level of public involvement.

The proposed project was reviewed and supported by the public review panel of the Future Fisheries Improvement program. The proposed project also will be reviewed by the Fish, Wildlife and Parks Commission and will be contingent upon their approval. The Environmental Assessment (EA) is being distributed to all individuals and groups listed on the cover letter. The EA will be published on the Montana Electronic Bulletin Board.

3. Duration of comment period?

Public comment will be accepted through 5 P.M. on April 1, 1998.

4. Person responsible for preparing the EA.

Mark Lere, Program Officer  
Habitat Protection Bureau  
Fisheries Division  
Montana Department of Fish, Wildlife and Parks  
1420 East 6th Avenue  
Helena, MT 59620

Telephone: (406) 444-2432

**MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS**  
 1420 E 6th Ave, PO BOX 200701, Helena, MT 59620-0701  
 (406) 444-2535

**ENVIRONMENTAL ASSESSMENT**

Project Title Lower Sweathouse Creek Restoration Project

Division/Bureau Fisheries Division -Future Fisheries Improvement

Description of Project The project is being proposed to restore stream stability and fish habitat on a 1,500 foot reach of Sweathouse Creek located near the town of Victor.

**POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT**

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Terrestrial & aquatic life and habitats		X				X
2. Water quality, quantity & distribution			X			X
3. Geology & soil quality, stability & moisture			X			X
4. Vegetation cover, quantity & quality			X			X
5. Aesthetics			X			X
6. Air quality				X		
7. Unique, endangered, fragile, or limited environmental resources				X		
8. Demands on environmental resources of land, water, air & energy				X		
9. Historical & archaeological sites				X		X

# POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

	MAJOR	MODERATE	MINOR	NONE	UNKNOWN	COMMENTS ON ATTACHED PAGES
1. Social structures & mores				X		
2. Cultural uniqueness & diversity				X		
3. Local & state tax base & tax revenue				X		
4. Agricultural or industrial production				X		
5. Human health				X		
6. Quantity & distribution of community & personal income				X		
7. Access to & quality of recreational and wilderness activities			X			X
8. Quantity & distribution of employment				X		
9. Distribution & density of population & housing				X		
10. Demands for government services				X		
11. Industrial & commercial activity				X		
12. Demands for energy				X		
13. Locally adopted environmental plans & goals				X		
14. Transportation networks & traffic flows				X		

Other groups or agencies contacted or which may have overlapping

jurisdiction Bitterroot Conservation District, NRCS, Army Corp of  
Engineers

Individuals or groups contributing to this EA Water Consulting, Inc.

Recommendation concerning preparation of EIS No EIS required.

EA prepared by : Mark Lere

Date: March 2, 1998